

Vendor Questions about Requirements

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1. For this Manipulator, do you require a standard Rotary Drive (You would specify Shaft Length) for Primary rotation only or do you need a Differentially Pumped Rotary Drive. The standard Rotary Drives with a shaft have a solid shaft. If you need the Differentially Pumped Rotary Drive, then we can attach a bored flange to the bottom of it with a shaft attached that can be used for your sample holder.

We require a differentially pumped rotary platform for 360 degree rotation with all service wiring to the sample holder routed down through a hollow tube.

2. Our DC Motors do not offer position readout as called out in the spec. You would need a stepper motor and controller for that. Which one do you want in the quote?

If a vendor cannot supply a position read-out display with dc motors, then they should quote for stepper motors to allow for a position read out.

3. Torque /speed required so we can determine the magidrive to use.

We do not require a high torque/speed for the rotary drive, but do require a bored tube large enough to fit service wiring for sample-heater current, sample bias, and two thermocouples (all insulated with ceramic beads), wiring not to be provided by vendor.

4. The length needed for the shaft

The shaft will have an insertion length of 40 mm beyond the mounting flange when fully retracted.

5. The orientation and the mass of their sample holder

Currently we plan to use our existing VG e-beam sample holder (with the open area beneath the sample platen) that receives the old style Omicron platens circa 2004. It will mount along the axis of the support tube, clamping onto the specified 3/8" end of the support tube. The sample holder mass is probably not more than 0.5 kg. The support tube requires a rotary bearing to minimize deflection during sample transfer.